the Upper Magdalena Valley, west side, south of Girardot, 3,300 meters east of El Valle and 7,500 meters north of San Luis, in a small affluent of the Río Luisa, near a house called El Dinde, Tolima Province, Colombia.

Age.—The holotype came from the *Baculites* zone, Maestrichtian stage, Upper Cretaceous. The hypotypes (personal communication from Olsson) were found in a shell bed in a band of sandy limestone 10 meters below a thin ridge of quartz pebble conglomerate. *Pettersia abnormalis* is associated with Foraminifera of the Maestrichtian stage, including *Siphogenerinoides bramlettei* Cushman and Hedberg.

ACKNOWLEDGMENTS

I am particularly indebted to Dr. A. A. Olsson, of Coral Gables, Fla., who sent me specimens for study and asked me to describe the new genus. Dr. Katherine V. W. Palmer kindly allowed me to borrow the holotype of *Cardium* (?) *abnormalis* from the collection at the Paleontological Research Institution, Ithaca, N. Y. Wm. T. Allen, of the U. S. National Museum, made the photographs for the paper.

REFERENCE

Olsson, A. A. *Contributions to the paleontology of northern Peru: Part VII, The Cretaceous of the Paita region.* Bull. Amer. Pal. **28** (111): 146 pp., 17 pls. 1944.

PALEONTOLOGY.—*A new carpoid from Oklahoma.* Harrell L. Strimple, Bartlesville, Okla. (Communicated by Alfred R. Loeblich, Jr.)

The new carpoid described below was found on a field expedition into the Criner Hills of southern Oklahoma made in the spring of 1950 by Mrs. Melba Strimple, Richard Alexander, and the author. An undescribed species of *Archaeocrinus* and *Hybocrinus crinerensis* Strimple and Watkins have been obtained from the same zone.

Myeinocystites, n. gen.

Theca is compressed, slightly convex in midsection of one side, and mildly concave on the opposite side. Following the morphological terminology of Bather (1900), the convex side is considered to be the right side and the apposing to be the left side. In the right side, there are 10 plates forming a marginal rim, or frame, and one is smaller than the others, being located in the extended lower right corner of the theca. Three of the marginal plates adjoin the stem. Within this marginal rim there are three large plates, and one small plate to the lower right. A small cluster of plates, resting in a notch between the two uppermost marginal plates, apparently marks an opening into the body cavity, probably a hydropore.

The left side is more complex. Marginal plates of the right side are curved sharply over to form the frame of the left side. Two additional plates are in contact with the stem, and 19 plates are present within the frame. A single small biserial arm rises in the marginal portion of the oral end of the theca and occupies a groove extending downward. To the left of its proximal extremity is found a long tubelike structure which appears to be an opening into the body cavity, though the function is a matter of conjecture. Immediately above the base of the arm there is a small cluster of plates, previously noted on the right side. A canal originates to the right of the arm base and follows the marginal rim past another opening to the right (probably the anus) and appears to terminate on a convex plate just below midheight of the theca. The proximal portion of the above-mentioned convex plate terminates abruptly, forming a sharp notchlike structure which might represent another opening into the body cavity (? a primitive pore-rhomb). The opening which lies to the right of the arm is covered by seven minute plates which converge toward the center.

The stem is wide, composed of thin columnals which do not form complete circlets owing to interruption by laterally directed sutures on the left side.

Surface ornamentation consists of heavy granules, or minute pustules, which do not form any definite pattern. They are more pronounced on the right side and are entirely absent on the arm, covering plates of the body openings, and in the canal of the left side.

Genotype species.—*Myeinocystites natus*, n. sp.

Occurrence.—Bromide formation, Ordovician; North America.

Remarks.—The presence of a canal is not without precedence among the Anomalocystidae. In *Trochocystites* Barrande (1859) such a canal is reported running round the thecal cavity on the inside of the marginals. Three openings are pres-

ent in that genus, one in the center of the oral end of the frame (? hydropore and gonopore) and one each to the right and left. Bather (1900) considered one to be the mouth and the other the anus, with question.

Belemnocystites Miller and Gurley (1894) appears to be more comparable to *Myeinocystites* than to other described forms. Unfortunately the specimens available to Miller and Gurley were damaged by silicification and the openings obliterated. Under critical comparison significant differences are readily apparent. The plates of the marginal rim cover an equal portion of both the right (dorsal) and left (ventral) sides in *Belemnocystites*, whereas in *Myeinocystites* only their edges are present on the left side. There are four large plates within the marginal rim of *Belemnocystites* in the right side, and no downward extension of the theca is present. In the present form there are three large plates within the frame, with a fourth, smaller plate in the downward extension of the theca. The plates within the marginals in the left side are more numerous in *Myeinocystites*, which in itself indicates a more primitive form.

Myeinocystites natus, n. sp.
Figs. 1, 2

The theca is compressed, subovoid in outline, 18.3 mm in length by 14.4 mm wide. Midportion of the right side is mildly convex, and the left side is shallowly concave. Ten plates form the marginal rim of the right side, three of which are adjacent to the column. Four plates are present within the marginals. In the left side there are 21 plates within the frame. A single arm is composed of some 24 long, narrow, interlocking brachials and reposes in a groove in the upper portion of the left side of the theca. Just above the base of the arm there is a small pyramid of plates which probably marks an opening into the body cavity (? hydropore). A well-defined opening (? anus) is present to the right of the arm and is connected to the (?) hydropore by a narrow canal which follows the inner edges of the marginals. The canal continues past the (?) anus which opening is covered by seven minute plates. A tubelike extension is present to the left of the proximal tip of the arm, and probably represent an opening into the body cavity.

The entire surface of the theca and column is covered by minute pustules with the exception of the arm, covering plates of the body openings, and the canal. They are more pronounced on the right side and tend to form small spines on the column.

Remarks.—This species is more comparable to *Belemnocystites wetherbyi* Miller and Gurley than to other described forms. Intimate comparison is impossible due to the incomplete preservation of specimens referred to that species; however, some readily discernible differences are noted. Viewed from the right side there are nine plates in the marginal rim (excluding plates in contact with the stem) of *B. wetherbyi*, four to the left and five to the right. In *M. natus* there are only three to the left and five to the right, one of which is a small plate in the downward extension of the theca. There is no extension of the theca in proximal regions, either to the right or left, in *B. wetherbyi*. There are fewer plates, within the frame of *B. wetherbyi*, in the left side than found in the present species.

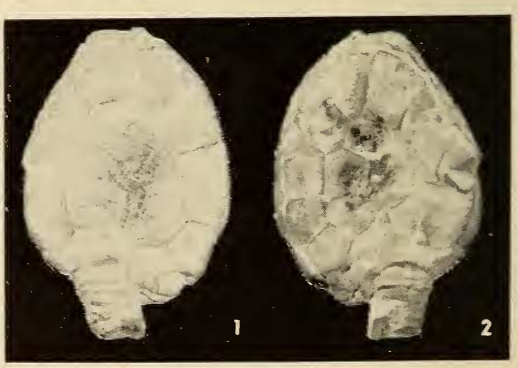
It is interesting to note that Wetherby, as well as Miller and Gurley, noted the presence of a small node to the left of the arm and surmised the existence of an opening into the body cavity. It is almost certain that the tubelike extension of *M. natus*, which is in that area, represents an opening.

Occurrence.—Bromide formation, Ordovician; bank of Spring Creek, a tributary of Hickory Creek, north of an exposure on Hickory Creek commonly known as "Rock crossing," Criner Hills, southwest of Ardmore, Okla.

Type.—Collected by H. L. Strimple. To be deposited in the U. S. National Museum.

REFERENCES

All cited references are listed in Bassler and Moody, *Bibliographic and faunal index of Paleozoic Pelmatozoan Echinoderms*, Geol. Soc. Amer. Spec. Pap. 45. 1943.



FIGS. 1–2.—Holotype of *Myeinocystites natus*, n. gen., n. sp., from right, and left sides, ×2.